CLAIMS

WE CLAIM:

1. A method for adding nodes to a wireless mesh network the method comprising:
adjusting an antenna sensitivity pattern of one or more nodes in the wireless mesh network to exhibit spatial selectivity;
transmitting a query; and
if the response is received within a predetermined time period,
receiving a response to the query from a responding wireless node; and
adding the responding wireless node to the mesh network.

2. The method of claim 1 further comprising adjusting the transmission pattern one or more times to enable the antenna sensitivity pattern to cover a predetermined spatial area.

3. The method of claim 1 wherein the predetermined time period is fixed.

4. The method of claim 1 wherein two or more nodes in the wireless mesh network adjust the antenna sensitivity pattern in a coordinated manner.

5. A method for supporting data connections between three or more wireless devices, the method comprising:
adjusting the sensitivity pattern of an antenna on a first wireless device;
communicating with a second wireless device; and
further adjusting the sensitivity pattern of the antenna on the first wireless device to enable communication with a third or more wireless devices.

6. The method of claim 5 wherein the further adjusting the sensitivity pattern includes adjusting the sensitivity pattern to cover a predetermined area.

7. The method of claim 5 wherein two or more wireless devices coordinate to adjust the sensitivity pattern.

8. A wireless device configured to operate in a wireless mesh network, the wireless device comprising:

a processor;

a memory coupled to the processor;

a module operable via the processor, the module configured to adjust an antenna sensitivity pattern of the wireless device to exhibit spatial selectivity;

a transmitter configured to transmit a query; and

a receiver configured to determine whether a response to the query is received in a predetermined time period and to add and responding wireless device to the mesh network.

9. The wireless device of claim 8 wherein the module is configured to adjust the transmission pattern one or more times to enable the antenna sensitivity pattern to cover a predetermined spatial area.

10. The wireless device of claim 8 wherein the predetermined time period is fixed.

11. The wireless device of claim 8 wherein the wireless device coordinates with one or more additional wireless devices in the wireless mesh network to adjust the antenna sensitivity pattern.

12. A computer readable medium having computer-executable instructions to perform acts for supporting data connections between three or more wireless devices, the acts comprising:

adjusting the sensitivity pattern of an antenna on a first wireless device;

communicating with a second wireless device; and

further adjusting the sensitivity pattern of the antenna on the first wireless device to enable communication with a third or more wireless devices.

13. The computer readable medium of claim 12 wherein the further adjusting the sensitivity pattern includes adjusting the sensitivity pattern to cover a predetermined area.

14. The computer readable medium of claim 12 wherein two or more wireless devices coordinate to adjust the sensitivity pattern.

15. A computer readable medium having computer-executable instructions to perform acts for adding nodes to a wireless mesh network, the acts comprising:

adjusting an antenna sensitivity pattern of one or more nodes in the wireless mesh network to exhibit spatial selectivity;

transmitting a query; and

if the response is received within a predetermined time period,

receiving a response to the query from a responding wireless node; and

adding the responding wireless node to the mesh network.

16. The computer readable medium of claim 15 wherein the acts further comprise adjusting the transmission pattern one or more times to enable the antenna sensitivity pattern to cover a predetermined spatial area.

17. The computer readable medium of claim 15 wherein the predetermined time period is fixed.

18. The computer readable medium of claim 15 wherein two or more nodes in the wireless mesh network adjust the antenna sensitivity pattern in a coordinated manner.